

CLAIMS:

1. A method of ion attachment mass spectrometry for attaching positively charged metal ions emitted from an ion emitter to a gas to be detected, which is introduced into an ionization chamber, in an atmosphere of a third component gas so as to ionize the gas by the metal ions, then performing measurement of mass of the gas by mass spectrometry, comprising

a step of performing the measurement by selecting one third component gas from a plurality of third component gases prepared in advance.

2. A method of ion attachment mass spectrometry for attaching positively charged metal ions emitted from an ion emitter to a gas to be detected, which is introduced into an ionization chamber, in an atmosphere of a third component gas so as to ionize the gas by the metal ions, then performing measurement the mass of the gas by mass spectrometry, comprising

a step of performing the measurement by a plurality of times in different third component gases, and

a step of distinguishing an interference peak arising due to the third component gas from the data obtained from these measurements.

3. A method of ion attachment mass spectrometry for attaching positively charged metal ions emitted from an ion emitter to a gas to be detected, which is introduced into an ionization chamber, in an atmosphere of a third component gas so as to ionize the gas by the metal ions, then performing measurement the mass of the gas by mass spectrometry, comprising

a step of performing the measurement by selecting one ion emitter from a plurality of ion emitters prepared in advance.

4. A method of ion attachment mass spectrometry for attaching positively charged metal ions emitted from an ion emitter to a gas to be detected, which is introduced into an ionization chamber, in an atmosphere of a third component gas so as to ionize the gas by the metal ions, then performing measurement of mass of the gas by mass spectrometry, comprising

a step of preparing a plurality of different ion emitters,

a step of performing the measurement by a plurality of times by different ion emitters, and

a step of distinguishing an interference peak arising due to the third component gas from the data.

5. An apparatus for ion attachment mass spectrometry comprising, an ion emitter for emitting positively charged metal ions, an ionization chamber for attaching the metal ions to a gas to be detected,

a third component gas introduction mechanism provided with a plurality of types of third component gases and introducing one type of third component gas selected from the plurality of types of third component gases into the ionization chamber, and

a mass spectrometer for performing mass spectrometry to detect the gas to which the metal ions are attached.

6. An apparatus for ion attachment mass spectrometry comprising, an ion emitter for emitting positively charged metal ions, an ionization chamber for attaching the metal ions to a gas to be detected,

a third component gas introduction mechanism provided with a plurality of types of third component gases and introducing one type of third component gas selected from the plurality of types of third component gases into the ionization chamber,

a mass spectrometer for performing mass spectrometry to

detect the gas to which the metal ions are attached, and

a data processor for processing data given from said mass spectrometer for distinguishing an interference peak arising due to the third component gas from a plurality of sets of measurement data based on a plurality of different types of third component gases.

7. An apparatus for ion attachment mass spectrometry comprising,
a plurality of types of ion emitters for emitting different types of positively charged metal ions, one of the plurality of types of ion emitters being selected for emission of the metal ions,
an ionization chamber for attaching the metal ions to a gas to be detected,

a third component gas introduction mechanism for introducing a third component gas into said ionization chamber,

a mass spectrometer for performing mass spectrometry to detect the gas to which the metal ions are attached, and

a data processor for processing data given from said mass spectrometer.

8. An apparatus for ion attachment mass spectrometry comprising,
a plurality of types of ion emitters for emitting different types of positively charged metal ions, one of the plurality of types of ion emitters being selected for emission of the metal ions,
an ionization chamber for attaching the metal ions to a gas to be detected,

a third component gas introduction mechanism for introducing a third component gas into said ionization chamber,

a mass spectrometer for performing mass spectrometry to detect the gas to which the metal ions are attached, and

a data processor for processing data given from said mass spectrometer for distinguishing an interference peak arising due

to a said ion emitter from a plurality of sets of measurement data based on the different ion emitters.

9. An apparatus for ion attachment mass spectrometry as set forth in claim 7, wherein said plurality of types of ion emitters are arranged at positions offset from the axis.

10. An apparatus for ion attachment mass spectrometry as set forth in claim 8, wherein said plurality of types of ion emitters are arranged at positions offset from the axis.